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**JUN - 9 1998**

**Federal Communications Commission  
Office of Secretary**

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**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554**

In the Matter of )

Southwestern Bell Telephone Company, Pacific Bell, )  
and Nevada Bell Petition for Relief )

from Regulation Pursuant to Section 706 of the )

Telecommunications Act of 1996 and )

47 U.S.C. § 160 for ADSL Infrastructure and Service )

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*CC Docket No. 98-91*

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**PETITION OF SOUTHWESTERN BELL TELEPHONE COMPANY,  
PACIFIC BELL, AND NEVADA BELL FOR RELIEF FROM REGULATION**

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**SOUTHWESTERN BELL TELEPHONE COMPANY  
PACIFIC BELL  
NEVADA BELL**

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**June 9, 1998**

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## SUMMARY\*

Southwestern Bell Telephone Company, Pacific Bell, and Nevada Bell file this Petition seeking relief from regulation under section 706 and section 10 for asymmetrical digital subscriber line ("ADSL") facilities and services. Specifically, relief is sought from:

- Any unbundling obligation applicable to ADSL facilities;
- Any obligation to provide a wholesale discount on ADSL services;
- Dominant treatment of ADSL service; and
- Any MFN obligation as applicable to inconsistent agreements as specified in the Petition.

These regulatory requirements in particular - neither necessary or appropriate in light of existing and potential competition -- hinder the deployment of ADSL by the SBC LECs, and act to deny or slow the benefits of this new technology to consumers. The FCC should seize the opportunity to chart a new course in the regulation of "advanced telecommunications capability" and associated services, and avoid the negative consequences of the current mode of regulation -- uneven regulation, less innovation, fewer incentives, less customer choice, less investment, less competition, and ultimately more market and customer frustration.

Section 706 of the 1996 Act provides independent authority that requires the FCC to act to provide investment incentives for the deployment of "advanced telecommunications capability" like ADSL. ADSL is a relatively new technology that establishes two high-speed data channels (one "downstream," one "upstream") over the same twisted pair used to provide POTS. Because the customer can still use his or her dial-tone service simultaneously, ADSL

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\* The abbreviations used in this Summary are as defined in the main text.

service is a "win/win" for consumers and LECs and is just the type of broadband capability that Congress intended to be incented by regulatory relief granted under section 706. The public interest would clearly be served by forbearance from dominant regulation, unbundling, and wholesale discounts for ADSL capability and associated services, as such forbearance would spur increased ADSL investment and deployment on a reasonable, prompt and more widespread basis than otherwise.

Consumers are demanding higher speed data communications, and that demand is being addressed with an increasing number of service options. Among the most prominent are cable modem service, satellite-based Internet access, and ADSL services (to date, provided only by competitors of the SBC LECs). Those services are already being offered in the market and as the SBC LECs decide where and when to deploy ADSL, they will be faced with existing and potential competition from those high-speed data alternatives. Currently, Pacific Bell has announced plans for deploying ADSL, and interstate tariffs will be filed.

At the same time that the SBC LECs are seeking regulatory relief, they are also committed to providing unbundled ADSL-capable loops on a non-discriminatory basis, collocation for ADSL equipment, and ISP bundling of ADSL. Unbundled loops will be qualified for ADSL use on a non-discriminatory basis by employing the same three-check process as the SBC LECs use in providing retail ADSL. Loop conditioning will also be made available. Collocation for ADSL equipment is already being provided. Moreover, ADSL customers will be able to direct their ADSL service to any carrier, ISP, corporate LAN, or other entity that is connected to the relevant SBC LEC's data network.

Each of the forbearance requests satisfies the standards of both the section 706 and section 10. As has been explained in the section 706 petitions already pending before the Commission, the section 706 "public interest" standard is clearly met. The relief requested would lower risk and increase incentives to invest in ADSL capability, especially on a widespread basis, to the benefit of all Americans. Moreover, not only would the SBC LECs be encouraged to invest in ADSL technology by the relief, but so would their competitors who would not be able to rely upon unbundling and resale of the SBC LEC infrastructure and services to provide ADSL.

The section 10 standard is likewise met for relief from dominant regulation of ADSL. The amount of existing and actual competition for high-speed data communications will ensure that the SBC LECs provide ADSL services under practices, terms and conditions that are just and reasonable, and with practices that are not unreasonably discriminatory, as well as ensure the protection of consumers. As with the section 706 relief, the public interest would clearly be served by the relief.

The requests for relief also encompasses limited relief from the MFN obligation in order to avoid having any relief granted by the FCC being frustrated and of limited effectiveness.

The SBC LECs also propose to use Part 64 and their CAMs to initially record the revenues, expenses, and investment associated with ADSL if the requested relief is granted.

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**PETITION OF SOUTHWESTERN BELL TELEPHONE COMPANY,  
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Pursuant to section 706 of the Telecommunications Act of 1996 ("1996 Act") and 47 U.S.C. § 160, Southwestern Bell Telephone Company, Pacific Bell, and Nevada Bell ("the "SBC LECs") petition the Commission for relief from various regulatory obligations and burdens in order to encourage the deployment of asymmetrical digital subscriber line ("ADSL") infrastructure and service in accordance with Congressional directives. There are a number of regulatory requirements that hinder the deployment by the SBC LECs of broadband infrastructure and services like ADSL, and thus act to deny or slow the benefits of new technologies like ADSL to consumers. With the removal of the identified regulatory obligations -- which are neither necessary nor appropriate in light of real and potential competition for high-speed data services -- the Commission can help ensure and hasten increased competition, increased ADSL availability, and hence greater consumer benefits than would otherwise occur.

Without that relief, the current mode of regulation would be carried forward into new, competitive services with the same negative consequences -- more uneven regulation, less

innovation, fewer incentives, less customer choice, less investment, less competition, and ultimately more market and customer frustration. Congress, clearly desirous that such results be avoided with advanced data capabilities, has provided the Commission with both the directive and authority under section 706 to provide the relief sought herein. The FCC should seize the opportunity to begin charting a new course in the regulation of "advanced telecommunications capability"<sup>1</sup> and associated services.

## **I. OVERVIEW**

This Petition is narrowly drawn to address only asymmetrical digital subscriber line ("ADSL") infrastructure and services, just one type of innovative broadband capability that Congress sought to have encouraged by the Commission with section 706.<sup>2</sup> Relatively new, ADSL technology is aimed at the demand for higher speed data connections. Customers are interested in rapid access to large quantities of information at an affordable price. The significant advancement in the speed of personal computing, the exponential growth in Internet usage, and an increase in the popularity of telecommuting are all driving the need for changes to the

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<sup>1</sup> Defined to mean "without regard to any transmission media or technology, as high-speed, switched, broadband telecommunications capability that enables users to originate and receive high-quality voice, data, graphics, and video telecommunications using any technology." Section 706(c)(1).

<sup>2</sup> As part of the upcoming mandated section 706 proceeding, the SBC LECs urge the Commission seriously consider the adoption of rules of general applicability that would eliminate the need to file additional section 706 petitions addressing subsequent high-speed data services provided with advanced telecommunications capability.



telecommunications connection to the home. The network connection to other customers' premises is typically through their local exchange service, but the loop component of that service has been seen as a roadblock to the widespread availability of high-speed data. Customer demand is fueling the technology changes -- as it normally does -- and these changes are evident not only in telecommunications facilities but also cable television facilities and direct broadcast satellite ("DBS") facilities, all of which provide access to end-users' premises.

To meet that demand at the end-user's premises, ADSL technology operates over the same twisted pair used to provide "plain old telephone service or POTS," and does it efficiently by establishing a high-speed data circuit that still permits the consumer to simultaneously use his or her dial-tone service. For that reason, ADSL is often referred to as a "data-over-voice" technology. Because ADSL can be provided over the same, single loop as voice service, a customer can subscribe to ADSL without having to purchase an additional line, and LECs can make ADSL available to more consumers without the need to invest in more plant -- a definite "win"/"win" for both consumers and local exchange carriers.

With the requested relief, the benefits of that "win"/"win" situation will be made available to consumers on a reasonable, timely, and more widespread basis than it would otherwise. There are any number of regulatory aspects applicable to the SBC LECs that act as a total or partial barrier or disincentive to investing in advanced telecommunications capability contrary to section 706. The SBC LECs have attempted to identify and focus on those that create the largest barriers in the context of ADSL. Each of those identified below discourage the

needed infrastructure investment, make the investment uneconomical or more costly, or saddle the investment risk with the SBC LECs while unacceptably handing its competitors the benefit of the investment.

This Petition follows broader section 706 petitions filed by Bell Atlantic, Ameritech, and U S WEST, as well as a petition for rulemaking by the Alliance for Public Technology ("APT").<sup>3</sup> The SBC LECs agree with many of the factual, policy, and legal matters set forth in those petitions, and believe them equally applicable to ADSL. Briefly, the SBC LECs believe that section 706 is an independent grant of authority that requires the FCC to act to provide investment incentives for the deployment of advanced telecommunications capability, and that the public interest would clearly be served by forbearance from dominant regulation, unbundling, and wholesale discounts for such advanced capability and associated services. Instead of reiterating those same arguments in detail here and burdening the Commission with overly duplicative material, the SBC LECs have attempted to summarize the already provided analysis that demonstrates that section 706 does grant independent authority to the FCC. This Petition will further focus on the SBC LECs' particular factual situation in their service areas and the specific relief sought, while attempting to avoid too much repetition.

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<sup>3</sup> See *Bell Atlantic's Petition for Relief from Barriers to Deployment of Advanced Telecommunications Services*, CC Docket No. 98-11; *Petition of U S WEST Communications, Inc. for Relief from Barriers to Deployment of Advanced Telecommunications Services*, CC Docket No. 98-26; *Petition of Ameritech Corporation to Remove Barriers to Investment in Advanced Telecommunications Capability*, CC Docket No. 98-32; *Petition of the Alliance for Public Technology Requesting Issuance of Notice of Inquiry And Notice of Proposed Rulemaking to Implement Section 706 of the 1996 Telecommunications Act*, RM 9244 RM (CCB/CPD 98-15).

Finally, a disclaimer -- this Petition expressly does not seek regulatory relief for purely circuit-switched voice service (*e.g.*, telephone exchange service, telephone toll service) or the basic network components generally used in the provision of that service (*e.g.*, loop, voice switching capabilities), nor are the SBC LECs requesting any relief from section 271 and its interLATA restriction.

## II. REQUESTS FOR RELIEF

The SBC LECs hereby petition the FCC for forbearance under section 706 from the following regulatory burdens:

- Any unbundling obligation imposed by 47 U.S.C. § 251(c)(3) and applicable FCC rules as applicable to the facilities and other infrastructure deployed to provide ADSL (this request expressly does not include unbundled loops or other facilities not required to be deployed to provide an ADSL service); and
- To the extent that an ADSL service is subject to a wholesale discount under 47 U.S.C. § 251(c)(4) and applicable FCC rules, any obligation to provide such a wholesale discount.<sup>4</sup>

Further, the SBC LECs request relief under 47 U.S.C. § 160 (commonly referred to "section 10") and, in the alternative, under section 706 from the following:

- Dominant treatment of ADSL service to eliminate the tariff filing requirements of 47 U.S.C. § 203 and applicable rules in 47 C.F.R. Parts 61 and 69, while permitting

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<sup>4</sup> It is technically possible to provide ADSL services using advanced telecommunications capability other than that described herein. Consistent with the section 706 requirement of technology neutrality and the FCC's own similar policies, any relief that is provided to ADSL services is requested to be technology neutral (*e.g.*, applicable to ADSL services without regard to the specific technology used to provide them).

permissive tariffing that allows maximum flexibility in terms and conditions, including pricing; and

- The "most favored nation" obligation of 47 U.S.C. § 252(i) to the extent that it might apply to any agreement to provide "interconnection, service, or network element" which is inconsistent with the relief provided pursuant to this Petition. The SBC LECs seek relief that only requires the grandfathering of such inconsistent agreements that may be effective as of the release date of such order, and only to the then-existing parties thereto and to the then-existing inconsistent arrangements.

As demonstrated herein, each of those requests meets the applicable legal standard for forbearance.

The SBC LECs urge the Commission to act promptly on this Petition so that consumers can quickly benefit from the increased availability of ADSL infrastructure and services and increased competition in high-speed data services, including ADSL.

### **III. A BRIEF PRIMER ON ADSL**

In order to give the Commission a clear picture of the nature of the relief sought, the SBC LECs believe it would be helpful to provide detailed information about ADSL technology and services.<sup>5</sup>

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<sup>5</sup> This primer is largely based upon the operating characteristics of the Alcatel ADSL equipment that the SBC LECs will deploy. The SBC LECs made the choice public over 18 months ago to deploy Alcatel ADSL equipment. See October 7, 1996, press release of SBC Communications Inc. where the selection of Alcatel by SBC and other companies, including a pre-merger Pacific Telesis, was publicly announced. A copy of this release is accessible by searching for "adsl" on "<http://www.sbc.com/News/Home.html>". Although the technical capabilities and limitations vary depending upon the ADSL manufacturer, the SBC LECs believe that the primer is generally accurate of most ADSL equipment and services.

Network Architecture: ADSL technology, a new modem technology, adds high-speed data capability to traditional local exchange service. This is accomplished by placing an ADSL modem at each end of the local exchange customer's copper local loop. Typically, one modem is located in the local exchange customer's serving wire center and the other at the customer's premises. The combined ADSL modems create three transmission channels. One channel is used for traditional voice-grade, circuit-switched applications while the other two channels are used for high-speed data communications (one "downstream" channel, one "upstream").

The ADSL modem located in the central office is called a "Digital Subscriber Line Multiplexer" or "DSLAM". The data channels derived by the DSLAM are connected to the relevant SBC LEC's fast-packet network while the voice channel is connected to a traditional voice grade switch. The ADSL modem located at the local exchange customer's location is provided by the customer ("CPE") and must be compatible with the DSLAM located in the central office. The voice channel created by the CPE can be connected to equipment designed for local exchange service (e.g., telephone, fax) while the data channels can be connected to a personal computer or other equipment designed for data transmission.

Engineering Efficiencies and Aggregation of Traffic: Because ADSL modems were developed to provide high-speed data capabilities over the existing copper local loop, a DSLAM is typically located in the wire center where ADSL service is to be offered. The DSLAM was designed to minimize ADSL modem costs by consolidating the ADSL modems into one unit as opposed to purchasing, installing and maintaining numerous individual ADSL modems.

Additionally, not every central office is equipped with a fast-packet or ATM switch. Thus, an economically efficient method was needed to transport the data paths created via ADSL in a central office, to an ATM or fast-packet node located elsewhere. The nature of the data traffic created by ADSL technology permits a single DS3 to transport the "packetized" data traffic of 576 end-users. Consequently, the DSLAM used by the SBC LECs was designed to be capable of connecting up to 576 end-users' local exchange loops to a single DS3 output, which can economically be transported and directly connected to an ATM switch.

A typical network configuration for ADSL is depicted on Attachment 1.

Transmission Rates: Although a local exchange customer can both send and receive data using ADSL, the downstream rate (*i.e.*, the rate at which data is transmitted from the DSLAM to the end-user customer) is much faster than the upstream rate (*i.e.*, from the end-user customer to the DSLAM). The rates available are a function of how the carrier configures the DSLAM, as well as the technical parameters of the loop being used. The SBC LECs currently plan to offer ADSL in the following transmission configurations (downstream/upstream): 384 kilobits per second (Kbps)/128 Kbps; 384 Kbps/384 Kbps; and 1.54 megabits per second/384 Kbps.

As with modems, Channel Service Units/Data Service Units ("CSU/DSUs"), ISDN Terminal Adapters, and other data communications equipment ("DCE"), the effective ADSL data transmission rate available to the customer can vary depending on many different network impairments. These impairments result from the characteristics of the network elements,

interference from within and outside the network, and design compromises dictated by physics and/or economics.

Nature of Service: ADSL does not provide a dial-up capability, but instead creates a dedicated virtual circuit that is always active, seven days a week, 24 hours a day. Accordingly, ADSL establishes a permanent virtual channel ("PVC") over the SBC LEC's fast-packet network to a destination requested by the ADSL customer (*e.g.*, corporate LAN, Internet provider of customer's choice). A typical application would be to establish a PVC to an Internet service provider's ("ISP's") "router" (*e.g.*, a data switch analogous in function to the voice switch). Once the PVC is established with that router, the end-user essentially makes long distance calls by entering or "dialing" the called party's Internet Protocol (IP) address (*e.g.*, 155.179.79.70) or its associated Uniform Resource Locator (URL) name, *e.g.*, www.fcc.gov. The end-user's "call" or data transmission is terminated when the host computer (typically in another State) receives and responds to the request or provides the data equivalent to "answer supervision."

Technical Parameters: Because of technical limitations, ADSL will not be available to every customer even if served by an ADSL-equipped central office. For example, customers must be located within the maximum acceptable standard distance<sup>6</sup> of an Alcatel ADSL-equipped central office and their lines must meet certain transmission criteria. For example, ADSL cannot be provided over a loop with load coils or any excessive bridged tap (multiple plant), nor can a DSLAM installed in a central office provide ADSL over a loop

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<sup>6</sup> Based upon the SBC LECs' trials and tests of various vendor equipment, the maximum acceptable standard distance is 16,000 feet for a 26 Equivalent Gauge (Eq. GA) loop.

provisioned using any pair gain system (e.g., SLC, Digital Additional Main Line, or DAML). Some conditions can be successfully identified and removed to allow a loop to qualify, and other conditions can outright disqualify the loop for ADSL-capability.<sup>7</sup>

Moreover, the interference effects from other digital services in the loop's cable must be determined. Since ADSL is affected by interference from other digital services or technologies (so-called "disturbers") within the network, the SBC LECs have established a spectrum management process to assure the compatibility of all services in the network, as well as to ensure that existing ADSL service levels are not compromised by the installation of future digital services or technologies.

#### **IV. THE HIGH-SPEED DATA MARKET**

Consumers are enjoying an increasing selection of new services and technologies that can provide high-speed data services. The SBC LECs' ADSL service will often be offered in a high-speed data market that is already populated by other services offered by cable companies and telecommunications carriers. Those other offerings are at least equal to the SBC LECs' ADSL offering in terms of speed and price. Accordingly, the SBC LECs' introduction of ADSL service is not at all like the paradigm in which the FCC has historically regulated -- the introduction by

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<sup>7</sup> Some of the loops found with load coils and bridged tap can be "conditioned" or modified so that they can support ADSL service. Currently, this conditioning would typically be performed on loops longer than 8,000 feet, but less than 16,000 feet in length. There are no guarantees that conditioning will provide an ADSL-capable loop, however, and each case must be evaluated individually.



an incumbent LEC of a service that has little to no initial competition. Instead of being the first to the market, the SBC LECs will often be the "second provider" -- if not the third or fourth -- with zero market share competing against pre-existing high-speed data services offered by entities that have no comparable regulatory oversight and thus much greater flexibility.

#### A. Cable Modem Service

Cable modem service is one of the most prominent and rapidly expanding high-speed data service being offered in the targeted market for ADSL. Kinetic Strategies, Inc. estimates that cable modem service was commercially available to more than 11 million homes, the equivalent of 11% of all cable homes passed in North America. The number of cable modem subscribers in North America was also estimated at 200,000 as of May 1, 1998. North American cable operators are currently *adding more than 1,000 cable modem subscribers per day*, and estimates are that the number of cable modem subscribers will reach 400,000 by the end of 1998 and top 1 million in 1999.<sup>8</sup> Even though cable providers and cable service are subject to rate regulation, the FCC has notably allowed the provision of these types of services without regulation and resale requirements.

Cable modem service is provided using two different methods -- two-way cable modems that send and receive data exclusively over the cable company's coaxial cable running to the location (*e.g.*, does not use the local service or a loop provided by any local exchange carriers,

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<sup>8</sup> See "Cable Datacom News" at "<http://cabledatacomnews.com/cm16.htm>". For current information on cable modems, *see generally* "<http://cabledatacomnews.com/index.htm>".

and "telco-return" modems which use an access line to provide the "upstream" transmission (all "downstream" transmissions are made through the coaxial cable). More than 85% of these subscribers are receiving service with two-way cable modems, with the remainder being served by telco-return modems. Two-way cable modem service is quite like ADSL from a customer's perspective -- usually offered on a unlimited use, "always on," basis.

Cable modem service will be a source of fierce competition to the SBC LECs' ADSL service because of their technical capabilities, pricing, and the resources of their providers. Cable operators benefit from a basic network infrastructure that can provide a greater bandwidth than a twisted pair. Cable modem service thus typically starts at a rate of 10 Mbps downstream and often reach 30 Mbps -- contrast those rates with the SBC LECs' plan to offer a maximum ADSL downstream rate of 1.5 Mbps. Moreover, if a two-way cable modem is being used, the upstream rate can be the same the downstream rate -- a feature not possible with ADSL at high speeds.

Cable modems also do not have to contend with the distance and interference limitations that ADSL must, or the fact that ADSL cannot be provided over all loops due to network configurations (e.g., ADSL cannot be used on a loop provided using a digital loop carrier).

Depending upon the operator, cable subscribers can get cable modem service for as little as \$39.90 per month, with installation running up to \$175.00. Notably, these prices usually include Internet service. With ADSL offered by the SBC LECs, Internet service will be purchased separately.

Moreover, cable operators can offer customers the necessary equipment without the regulatory prohibition facing the SBC LECs. Pending various motions filed with the Commission, the SBC LECs must comply with the rules governing customer proprietary network information ("CPNI") in marketing ADSL customer premises equipment ("CPE") its customers. To the SBC LECs' knowledge, cable operators have no similar restrictions.

Further, in most cases, the modem is provided by the cable company as part of the monthly service. To the extent cable modems are sold to customers, they can generally be purchased by the cable subscriber for less than the aggregate price of the ADSL modem, splitter, and network interface card. ADSL equipment (modem, splitter, network interface card) sells in the range of \$440-\$660.

Finally, many cable operators are large companies (Time Warner, TCI, Cox) whose already impressive financial resources are being augmented by price increases for cable service, and the infusion of new capital by third parties. For example, Microsoft recently committed a billion dollars for investing in cable operations.

Contrary to the attempts by others to downplay cable modems, the Commission should not be confused -- the SBC LECs' ADSL offering will be in direct competition with cable modem services in numerous locales. The following are cable modem service already being

offered in areas where the SBC LECs are asking for relief:

<u>Operator/Location</u>	<u>Downstream</u>	<u>Upstream</u>	<u>Pricing</u>
@Home (Cox Comm.) (Orange County, CA, Oklahoma City, OK)	30 Mbps	768 Kbps	\$44.95 - 54.95/month \$ 149 installation
@Home (Cox Comm) (San Diego )	30 Mbps	768 Kbps	\$39.95 - 49.95/month \$ 149 installation
MediaOne (Los Angeles)	10 Mbps	10 Mbps	\$39.95 - 49.95/month \$99 installation
@Home (TCI) (Fremont, Pleasanton, San Ramon, Sunnyvale, CA)	10 Mbps	10 Mbps	\$34.95/month \$150 installation
Road Runner (Time Warner) (San Diego)	30 Mbps	768 Kbps	\$ 44.95/month

Cable modem service is also available in California within Danville, Los Altos, Los Angeles, Orange County, San Diego, San Mateo, Palo Alto, Eureka, Encinitas, Point Reyes, Riverside, Pasadena, Stockton, Ventura, Fremont, Sunnyvale, and Castro Valley. In Southwestern Bell Telephone Company's ("SWBT's") service area, cable modem service is available in Conway, Arkansas; Durant and Oklahoma City, Oklahoma; and Dallas, Highland Park, University Park, Bryant, College Station, and El Paso, Texas. Houston and San Antonio, Texas, St. Louis, Missouri, and Tulsa, Oklahoma are each expected to have cable modem service before the end of this year.

### **B. Satellite-based Internet Access**

The SBC LECs' ADSL service will also compete with the high-speed Internet access services provided by Hughes Electronics, a General Motors subsidiary, under the service names "DirecPC" (Internet access only) and "DIRECDuo" (Internet access plus DBS service). Using a 24-inch dish purchased for about \$300, a consumer can receive Internet access at speeds up to 400 Kbps. Price plans for this service range from \$20 to \$130 per month, with additional charges possible based upon time-of-day usage.

### **C. ADSL Competitors**

When the SBC LECs begins offering ADSL service, they will be confronted with competitors that have already begun successfully offering the service and are rapidly expanding the geographic scope of their offerings.

For example, Covad Communications Company (whose owners include E.M. Warburg Pincus and Intel Corporation) announced last year the availability of DSL service to over 400,000 homes and businesses in the San Francisco Bay area, including Silicon Valley. That service offering includes DSL offerings of 144 Kbps downstream and upstream, to 1.5 Mbps downstream with 384 Kbps upstream.<sup>9</sup> In March 1998, Covad announced that its DSL offerings had been expanded to cover over 700,000 homes and business in the Bay Area, and that five additional metropolitan

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<sup>9</sup> See "TeleChoice Report on xDSL OnLine," at "<http://telechoice.com/xdslnewz/showDSL.cgi?881612433>".

markets were being entered, including Los Angeles. As an industry observer noted,

Covad is focused on trying to grab as much traffic going through the CO for PC/data applications, and it is going to wholesale its services to multiple ISPs to meet that model. Instead of trying to retail DSL services across a limited set of COs in a town, it is going for the volume across a larger number of COs – traffic generated by a large number of ISPs. So it will go into a city and offer 100% "blanket" coverage so that it can pick up a lot of the ISP resale traffic.<sup>10</sup>

Covad is hardly alone. NorthPoint Communications, Inc., UUNET Technologies, Inc. (the WorldCom subsidiary), and Rhythms NetConnections all offer DSL service in California. Since at least March 1998, NorthPoint has been providing DSL service throughout the San Francisco Bay area and Silicon Valley<sup>11</sup> and, within the last week, announced the availability of its DSL service to the Los Angeles area, including "Los Angeles County proper, Orange County, San Bernardino, and San Fernando Valley."<sup>12</sup> UUNET also began providing DSL in Silicon Valley in March 1998.<sup>13</sup> In contrast, Rhythms is focused on bringing DSL service "throughout much of the San Diego metropolitan area" and, at the end of April 1998, announced that it will provide ADSL in San

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<sup>10</sup> See "TeleChoice Report on xDSL OnLine," at "<http://telechoice.com/xdslnewz/showDSL.cgi?890068729>".

<sup>11</sup> See "TeleChoice Report on xDSL OnLine," at "<http://telechoice.com/xdslnewz/showDSL.cgi?890668305>".

<sup>12</sup> See "TeleChoice Report on xDSL OnLine," at "<http://telechoice.com/xdslnewz/showDSL.cgi?896711180>".

<sup>13</sup> See "TeleChoice Report on xDSL OnLine," at "<http://telechoice.com/xdslnewz/showDSL.cgi?889644308>".

Francisco, Oakland, and San Jose beginning in June 1998, and Los Angeles/Orange County about six months later.<sup>14</sup>

Within SWBT's service area, Netspeed has been offering DSL service in Austin, Texas since January 1997. A carrier named "On The Net" began offering ADSL in Springfield, Missouri in February 1997.

The SBC LECs expect that each of those carriers and others will continue to grow and expand, providing consumers with alternative providers of ADSL service.

**V. THE SBC LECs ARE COMMITTED TO PROVIDING ADSL-CAPABLE LOOPS, COLLOCATION, AND ISP BUNDLING OF ADSL**

**A. The SBC LECs Will Provide ADSL-Capable Unbundled Loops On a Non-Discriminatory Basis**

One of the concerns expressed by the Chairman of the FCC, William Kennard,<sup>15</sup> and Commissioner Gloria Tristani<sup>16</sup> is that other carriers may not have equivalent access to ADSL-qualified unbundled loops. The SBC LECs are committed to ensuring that carriers have such

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<sup>14</sup> See "TeleChoice Report on xDSL OnLine," at "<http://telechoice.com/xdslnewz>".

<sup>15</sup> See Remarks by William Kennard, Chairman, Federal Communications Commission, to USTA's Inside Washington Telecom, April 27, 1998, at "<http://www.fcc.gov/Speeches/Kennard/spwek813.html>".

<sup>16</sup> See Remarks of Commissioner Gloria Tristani before the U S WEST Regional Oversight Committee, April 27, 1998, entitled "Section 706: An Opportunity for Broadband Competition Policy," at "<http://www.fcc.gov/Speeches/Tristani/spgt807.html>".

access.<sup>17</sup> To do so, the SBC LECs are using a software system called "WebQual" to perform two of the three separate checks needed to determine the ADSL capability of a loop -- "facility availability" and "loop qualification." An automated version of the other check, "spectrum management," will be deployed in the near future.

These three checks to be made by the SBC LEC are performed to address facility requirements and the technical characteristics and limitations of ADSL.

**Facility Availability:** A check will be made for the requisite copper loop to the requested physical location. ADSL cannot be provided over a loop with load coils or any excessive bridged tap (multiple plant), nor can a DSLAM installed in a central office provide ADSL over a loop provisioned using any pair gain system (*e.g.*, Digital Loop Carrier, DAML).

Some conditions can be successfully identified and removed to allow a loop to qualify, and some conditions can summarily disqualify the loop for ADSL-capability.

**Loop Qualification Check:** If a copper loop is available, its length will be checked using WebQual to determine whether it can support ADSL technology. If the loop length is less than the maximum acceptable standard distance as calculated using existing cable records or mechanically tested lengths as provided by the SBC LEC, the loop may be ADSL-capable. If

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<sup>17</sup> A carrier purchasing ADSL-compatible loops may integrate data facilities with circuit-switched voice facilities to offer a "data-over-voice service" to its customers in the same manner that the SBC LECs will offer ADSL to its local exchange customers. A carrier may also want an ADSL-compatible loop to only offer data service to its customers. When an end-user subscribes to a data-only service from a carrier, another loop will be needed in order to provide voice service to that end-user.



loop is available but requires conditioning (*i.e.*, removal of load coils, bridge tap, and/or repeater) to support ADSL, conditioning will be available as an option.

If the length is greater than the maximum acceptable standard distance, the SBC LECs have serious doubts about the loop's ability to support ADSL. However, subject to the qualification about suitability noted below and the observance by the carrier with the mandatory power limitations that are part of spectrum management, the loop can be nevertheless be provided at the carrier's request.

**Spectrum Management Check:** This check is necessary to ensure that new services will not affect existing services. By mid-1999 (projected), WebQual will be able to check to determine if ADSL or other digital services can be installed in the loop distribution plant at the requested location without causing interference to services already being provided over that plant. Today, spectrum management is done manually. Until WebQual is sufficiently updated, the engineering personnel of the relevant SBC LEC will be responsible for manually identifying in the network "disturbers" (*i.e.*, other digital services within the same binder, or adjacent binder, that cause interference) and calculating ADSL and broadband interference. Disturbers may disqualify a loop.

Consistent, non-discriminatory treatment results from those checks -- if a request passes all three checks, the loop that has passed can be used by either the SBC LEC or another carrier to provide ADSL. If the request fails either the "facility availability" check or the "spectrum management" check, then neither the SBC LEC nor any other carrier can provide ADSL using that